

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)
)
Andrew T. Yule et al.,) Examiner: Misleh, Justin P
)
Serial No.: 10/552,049) Art Unit: 2622
)
Filing Date: 10/04/2005) Confirmation No. 6165
)
For: METHOD AND POSITION STAMPING)
A PHOTO OR VIDEO CLIP TAKEN)
WITH A DIGITAL CAMERA)

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Commissioner For Patents
P.O. Box 1450
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APPEAL BRIEF

Dear Sir:

The Applicants (“Appellants”) submit the following Appeal Brief pursuant to 37 C.F.R. §41.37(c) for consideration by the Board of Patent Appeals and Interferences.

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I. REAL PARTY IN INTEREST

Andrew T. Yule, Christopher B. Marshall and Simon R. Turner are named as the inventors on the application. Andrew T. Yule, Christopher B. Marshall and Simon R. Turner transferred their rights in the subject application through an assignment to Koninklijke Philips Electronics N.V. ("Koninklijke"), a Corporation of the Netherlands, having a principal place of business in Amsterdam, the Netherlands. The assignment is recorded at reel/frame number 017851/0987. Koninklijke subsequently transferred their rights in the subject application through an assignment to NXP B.V. ("NXP"), a Corporation of the Netherlands, having a principal place of business in Amsterdam, the Netherlands. The assignment is recorded at reel/frame number 019719/0843. Thereafter, NXP transferred their rights in the subject application through an assignment to Geotate B.V. ("Geotate"), a Corporation of the Netherlands, having a principal place of business in Amsterdam, the Netherlands. The assignment is recorded at reel/frame number 021339/0708. Further, it is additionally noted that Geotate is subsidiary of u-blox, a Corporation of Switzerland having a principal place of business in Thalwil, Switzerland. Accordingly, Geotate is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, be directly affected by or have a bearing on the Board's decision in this Appeal.

III. STATUS OF CLAIMS

Claims 1-15 are pending in the application. The Examiner has rejected claims 1-15. The Appellants respectfully appeal the rejection of claims 1-15.

IV. STATUS OF AMENDMENTS

Amendments to the claims were presented in a response to the Final Office Action mailed February 4, 2009. In the Advisory Action mailed February 25, 2009, the Examiner noted that the amendments presented in the response to Final Office Action have been entered. Therefore, all the claims now pending and listed in the Claims Appendix have been considered by the Examiner and rejected. The Appellants respectfully appeal the rejection of claim 1-15.

V. SUMMARY OF CLAIMED SUBJECT MATTER**Claim 1**

In a first aspect according to claim 1, the method as presently claimed is concerned with appending position metadata to an image file (p.1, lines 6-10). The file is of a photo or video clip and taken with a digital camera having a GPS antenna and RF front-end (p.2, lines 15-16). The front-end comprises an analog to digital converter for receiving GPS signals and outputting GPS signal samples (p.1, lines 6-10; p.2, lines 18-24). According to the claimed method, upon taking a photo or video clip, an image file is created containing the photo/clip (p.2, lines 29-30); and received GPS signals are sampled and the samples stored with an indication of the image file to which those samples pertain (p.2, line 30 – p.3, line 2). Subsequently, the stored GPS signal samples are processed to obtain a position fix and that position fix is appended to the image file in question (p.3, line 5-12).

The method, as defined by claim 1, concerns reducing the processing burden and consequential power consumption of a digital camera having a GPS capability (see p. 1, line 26 - p.2, line 2). This in turn may lead to simplified camera (hardware) design and/or extended battery life of the camera, both of which are particularly advantageous properties for portable consumer electronic devices such as digital cameras.

The solution of the present invention, as recited in claim 1, is to sample the GPS signals; and store the resulting samples with an indication of the relevant image file. These samples can then subsequently be processed to obtain a position fix. In this way, the burden of fully processing the received GPS signals (to obtain a position fix), at the time of capture of the photo/video-clip, is removed.

Claim 2

Claim 2 recites the method of claim 1 wherein the step of subsequently processing the GPS signal samples is done after an intentional delay has elapsed after the step of creating an image file (p. 3, line 20-26).

Claim 3

Claim 3 recites the method of claim 1 further comprising the step of, after the step of creating an image file but before the step of subsequently processing the GPS signal samples, uploading the image file and GPS signal samples to an external computer (p. 3, line 3-12).

Claim 4

Claim 4 recites the method of claim 1 further comprising the step of, after the step of creating an image file, detecting the connection to the camera of an external power source whereupon the step of processing the GPS signal samples is done either automatically or after user confirmation of an automatic prompt for the same (p. 3, line 3-12).

Claim 5

Claim 5 recites the method of claim 1 wherein the step of creating an image file is performed twice upon a user taking respective first and second photo or video clips, prior to the step of subsequently processing the GPS signal being done for the first photo or video clip (p. 2, line 3-5).

Claim 6

Claim 6 recites the method of claim 1 wherein the GPS signal samples are stored in a file format (p. 1, line 18-25).

Claim 7

In another aspect, according to claim 7, the invention provides a digital camera. The camera comprises a GPS antenna and a GPS RF front-end (p.2, lines 15-16). The RF front-end includes an analog to digital converter for receiving GPS signals (p.1, lines 6-10; p.2, lines 18-24). The camera is configured so that, upon taking a photo or video-clip, an image file is created containing that photo/clip (p.2, lines 29-30); and received GPS signals are sampled and the resulting GPS signal samples are stored with an indication of the created image file to which the samples pertain (p.2, line 30 – p.3, line 2).

In other words, the camera is configured so that it executes the first part of the method of claim 1 (that is, sampling and storing, but not necessarily including the step of “subsequently processing the GPS signal samples”).

Claim 8

Claim 8 recites the digital camera of claim 7 further comprising a GPS signal processor to perform subsequent processing of the GPS signal samples to obtain a position fix and append the position fix to the image file (p. 1, line 18-30).

Claim 9

Claim 9 recites the digital camera of claim 7 configured to process the GPS signal samples to obtain said position fix after an intentional delay has elapsed after said GPS signal samples are stored (p. 3, line 20-26).

Claim 10

Claim 10 recites the digital camera of claim 7 configured to process the GPS signal samples to obtain said position fix after detecting the connection to the camera of an external power source either automatically or after user confirmation of an automatic prompt for the same (p. 3, line 3-12).

Claim 11

Claim 11 recites the digital camera of claim 7 configured to allow said image file creation and said GPS signal sample storing to be performed twice upon a user taking respective first and second photo or video clips prior to processing the GPS signal samples to obtain said position fix and appending the position fix to the image file of the first photo or video clip (p. 2, line 3-5).

Claim 12

Claim 12 recites the digital camera of claim 7 configured to upload the image file and GPS signal samples to an external computer (p. 3, line 3-12).

Claim 13

Claim 13 recites the digital camera of claim 7 configured to allow said image file creation and said GPS signal sample storing to be performed twice upon a user taking respective first and second photo or video clips prior to uploading the image files and GPS signal samples to said external computer (p. 2, line 3-5).

Claim 14

Claim 14 recites the digital camera of claim 7 wherein the GPS signal samples are stored in a file format (p. 1, line 18-25).

Claim 15

In a further aspect, according to claim 15, the invention provides a computer comprising a processor and receiver. The computer is configured to receive through the receiver: an image file containing a photo or video clip; GPS signal samples; and an indication of the image file to which the samples pertain, by virtue of having been sampled when the photo or clip was taken (p.3, lines 3-5). The computer is configured to process the GPS signal samples, by operation of the processor, to obtain a position fix; and to append the position fix to the corresponding image file (p.3, lines 5-12).

VI. GROUND S OF REJECTION TO BE REVIEWED ON APPEAL

In the Final Office Action mailed on November 18, 2008, the Examiner has rejected claims 1-15.

Claims 1-15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,007,243 issued to Baldino (hereinafter "Baldino").

All of the claims do not stand or fall together. The basis for the separate patentability of the claims is set forth below. The claims will be discussed in the order set forth in the Final Office Action as listed above.

VII. ARGUMENT

a. Overview of the Cited Reference – Baldino

Baldino discloses a method and apparatus for producing digital images that have embedded image capture location icons. Specifically, a camera is equipped with a GPS receiver module. This module supplies "precise latitude and longitude information", which is added to the image data when an image frame is captured and digitized. See Baldino, Column 4, Lines 1-10. Later, the image file is transferred to a "display circuit." Here, one or more pre-existing icons from a library are selected, based on the latitude and longitude information, for display with the image. The icons in the library correspond to predefined GPS latitude-longitude combinations See Baldino, Column 4, Lines 29-33. Notably, in Baldino, the processing of received GPS signals to derive a position fix takes place in the camera and "when an image frame is captured and digitized." The subsequent processing, at the display circuit, merely looks up a suitable icon in the library, using the position fix (i.e. latitude and longitude) previously added to the image, at the time of capture, by the camera.

b. Rejection of Claims 1-15 Under 35 U.S.C. § 102(e)

Claims 1-15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,007,243 issued to Baldino (hereinafter "Baldino").

To anticipate a claim, the Examiner must show that a single reference teaches each of the elements of that claim. Thus, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

i. Claim 1

1. Independent Claim 1 is patentable at least because Baldino fails to disclose “sampling received GPS signals and storing those GPS signal samples” as recited by claim 1.

Independent claim 1 recites “sampling received GPS signals and storing those GPS signal samples” (emphasis added). Baldino does not teach these elements.

The Examiner admits in the Advisory Action of February 25, 2009 that the “specific contents and/or operation” of Baldino’s GPS receiver is not known. See Advisory Action, Page 3, Paragraph 6. In fact, the Examiner is unable to identify any disclosure in Baldino that would teach a person of ordinary skill in that art how to store GPS signal samples. However, the Examiner nonetheless contends that “in order for basic successful operation of Baldino’s invention” the device “must sample, process and store GPS signals” (emphasis in original). See Advisory Action, Page 3, Paragraph 6. The Appellants submit that this logic is technically incorrect, since storing the signals is not a necessity of the method disclosed by Baldino. The reason why the Examiner cannot identify the disclosure of this feature in Baldino is simply that Baldino does not disclose it (explicitly or implicitly).

Moreover, in the Advisory Action the Examiner appears to require that the Appellants provide additional evidence to show that the GPS receiver of Baldino is of a “conventional” type. That is, that the GPS receiver of Baldino shares with other prior art GPS receivers the characteristic of not storing GPS signal samples. The imposition of this evidential burden is improper. The Examiner is asserting, having admitted the lack of basis in Baldino that this reference discloses one of the central features of claim 1 and then demands that the Appellants prove otherwise.

Notably, multiple examples of conventional GPS receivers have already been cited in the present specification as filed, including US 6,269,446 issued to Schumacher, EP 1189021A1, and a standard textbook in this field, “Understanding GPS: principles and applications” by Elliott Kaplan (editor), Artech House, Mobile Communications Series, 1996, ISBN 0890067937. None of these prior art references disclose storing GPS signal samples. Instead, each are capable of functioning without doing so. The weight of evidence is therefore against the Examiner’s assertion, because all evidence of the prior art consistently avoids any need for – or mention of – storing GPS signal samples. Specifically, Baldino has no mention of this element. Therefore, the only reasonable conclusion is that the element has not been disclosed. The Examiner is insisting

(without evidence) on an interpretation of Baldino that runs contrary to the teachings of Baldino and contrary to the remainder of the state of the art (and/or the common general knowledge of a person of ordinary skill in the art).

As the Appellants have previously pointed out (for example in the response to Final Office Action filed February 4, 2009) there is no necessity for the device of Baldino to “store” GPS signal samples. On the contrary, to implement the element of Baldino, like the other prior art examples mentioned above, a person of ordinary skill in the art is directed to (i) receive GPS signals (ii) sample these received signals using an A/D converter and (iii) process the resulting samples immediately, as they are generated, to obtain a position fix. However, as described in more detail below, no “storing” step is directly disclosed nor would there be any rationale for implicitly storing the samples, according to the teachings of the prior art.

The “processing” of the samples mentioned in the preceding paragraph comprises correlating the samples with a known Pseudo-Noise (PN) code associated with each satellite. This enables the GPS receiver to determine the relative time-of-arrival (and hence time-of-flight) of signals from the various GPS satellites. Based on these propagation delays, the GPS receiver can compute its position relative to the satellites. With knowledge of the satellite positions, the GPS receiver can then compute its absolute position (latitude and longitude). This absolute position is the “position fix.” referred to in the preceding paragraph. All of this is common general knowledge to a person having even a vague familiarity with GPS positioning systems. This is evidenced, for example, by the textbook by Kaplan cited above and in the specification as filed. Thus, processing as disclosed in Baldino does not require storing GPS signal samples as argued by the Examiner, because generation of the “position fix” as described in Baldino does not require storage of GPS signals.

The Examiner also contends that the transient persistence of GPS signal samples in the processing pipeline implied by Baldino constitutes “storing” the samples. The Appellants respectfully disagree. Such transient existence does not constitute “storing” in the sense of claim 1 when read in the context of the claims. To apply such an interpretation would deprive the recited element of “storing those GPS signal samples...” of all meaning, since the samples would already have been implicitly “stored” as soon as they came into existence. The recitation in the claims of “storing” must mean something, but the Examiner does not offer a plausible, or even consistent, interpretation.

Compared with Baldino, independent claim 1 reduces the processing burden and consequential power consumption of a digital camera having a GPS capability. See Specification, Page 1, Line 26 through Page 2, Line 2. In turn, this increase in efficiency simplifies camera hardware design and/or extends battery life of the camera.

Based on the teachings of Baldino, a person of ordinary skill in the art would (at the very least) have to modify Baldino such that GPS signal samples are stored with an indication of the image file to which they pertain, and are not processed to calculate latitude and longitude information. This modification is non-obvious. Typical image file formats (such as JPEG or Exif) known to a person of ordinary skill in the art at the time the present invention was made did not provide for storage of GPS signal samples. However, Exif does provide fields for storage of a position fix, as taught by Baldino. The modifications necessary to remedy the deficiencies of Baldino therefore run contrary to a person of ordinary skill in the art's common general knowledge. More to the point, there is no motivation to modify Baldino in the ways required to arrive at the method of claim 1.

Thus, for the reasons outlined above, Baldino does not disclose "sampling received GPS signals and storing those GPS signal samples" as recited by claim 1. Therefore, Baldino fails to disclose each element of claim 1, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

2. Independent Claim 1 is patentable at least because Baldino fails to disclose "storing those GPS signal samples with an indication of the image file of the photo or video clip to which those samples pertain" as recited by claim 1.

Independent claim 1 recites "storing those GPS signal samples with an indication of the image file of the photo or video clip to which those samples pertain" (emphasis added). Baldino does not teach these elements.

The Appellants note that the Examiner appears to attach particular significance to the element of claim 1 that the GPS signal samples are stored "with an indication of the image file...to which those GPS signal samples pertain." The Appellants are at a loss to understand the Examiner's interpretation of this part of the claim, or how it is relevant to the alleged anticipation by Baldino. The Examiner contends that this limitation "does not actually require storing the sampled GPS signals with the image data." This seems to be a fair assertion: the limitation

requires only a looser association (via the “indication”) between stored GPS signal samples and the image. However, as discussed above, Baldino does not disclose storing GPS signal samples as that term is defined by the Appellants (i.e., storing for subsequent processing as set forth in step (ii) of Claim 1). Baldino instead is concerned with the association of “location information” with the image data in an image file. The Appellants, therefore, respectfully submit that the element of “storing...GPS signal samples with an indication of the image file” is not disclosed by Baldino.

The Appellants have made this point previously (for example in the responses filed February 4, 2009 and October 3, 2008). However, the Examiner has yet to offer an explanation of where in Baldino this element might be disclosed.

Thus, for the reasons outlined above, Baldino does not disclose “storing those GPS signal samples with an indication of the image file of the photo or video clip to which those samples pertain” as recited by claim 1. Therefore, Baldino fails to disclose each element of claim 1, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

3. Independent Claim 1 is patentable at least because Baldino fails to disclose “subsequently processing the GPS signal samples to obtain a position fix” as recited by claim 1.

Independent claim 1 recites “subsequently processing the GPS signal samples to obtain a position fix” (emphasis added). Baldino does not teach these elements.

From the arguments set out in the Advisory Action, it seems that the Examiner’s view of how this feature is anticipated by Baldino is based on fundamental misunderstandings of the art of GPS positioning as well as the present specification and claims.

The Examiner asserts at paragraph 15 of the Advisory Action that the “location information” of Baldino includes “GPS signal samples” as presently claimed. Likewise, at paragraph 12 of the Advisory Action, the Examiner asserts that “the mere fact that Baldino stores the location information, which is based on sampling, processing and storing of the GPS signals ... such that the image may be processed at a later time to obtain a position fix and append the position fix to the image file is a clear indication that Baldino discloses subsequently processing the GPS signal samples to obtain a position fix and appending the position fix to the image file” (emphasis added).

However, the use of the term “location information” in Baldino stems from the “Background of the Invention” section. At column 1, lines 22-28, Baldino explains that prior art systems require “manual entry of information identifying the capture location.” This information can “give one who receives the image file an indication of where the image emanates.” In the following paragraph, at line 35, Baldino switches to the shorthand “capture location information,” and states that the well-known GPS receiver can automate the provisions of such information. From this description, it is at least clear that “location information” is something which indicates to a human user the location of the capture of the image. It is also clear that the “location information” can be either manually entered by a human or automatically generated by a GPS receiver.

One can speculate whether manually entered “location information” might include a textual place name entered by a user. However, in the context of the GPS receiver, the scope of the term is clear. For example, at column 4, lines 1-10, “location information” is used as a synonym for “precise latitude and longitude information.” Any other interpretation would render the teaching of Baldino inconsistent and meaningless.

In this context, the Examiner’s repeated quotation of sampling, processing and storing GPS signals to produce “location information” is nonsense. If the “processing” of sampled GPS signals is to produce location information (for example, in the conventional GPS method reviewed above), then the GPS signals will not be “stored” afterwards when the useful information has already been extracted from them.

Alternatively, or additionally, the Examiner may be suggesting that stored GPS signals themselves comprise or contain the “location information.” This is similarly nonsensical. GPS signals, received by an RF front-end (as recited in claim 1) from a given GPS satellite, comprise a time-signal generated by the satellite’s clock along with encoded data describing the satellite’s trajectory. They clearly do not comprise the “location” of the GPS receiver as argued by the Examiner.

To determine the location of the GPS receiver, that is, the latitude-longitude “location information” of Baldino, the receiver must carry out a complicated analysis of the GPS signals. Specifically, it must compare the signals from multiple satellites to determine relative time delays in arrival; compute the relative distances to the satellites; and finally compute its own “location” using the satellite trajectories as a frame of reference.

However, nothing received from the satellites could possibly comprise “location information” relating to the receiver, because the satellites are completely unaware even of the existence of the receiver, let alone its location. The receiver is passive, in the sense that location is determined only by listening to and comparing the transmissions of multiple satellites. The transmissions themselves are generic and location can only be inferred with reference to a unique combination of timings observed by the receiver at a given instant in time and point in space. Clearly, therefore, sampled versions of the transmissions (“GPS signal samples”) are themselves generic and cannot be construed as comprising, including or representing the location of the receiver.

Data which may be processed to derive latitude and longitude is not the same as the latitude/longitude information itself. By saying that “location information” includes “GPS signal samples,” the Examiner is therefore conflating the fundamentally opposed concepts of received GPS signals (which contain satellite transmissions) and the output of GPS positioning processing (which outputs latitude and longitude information).

Notably, this construction also contradicts assumptions relied upon by the Examiner in relation to the “storage” of GPS signal samples (see point 1 above). The Examiner asserts that the implied transient existence of GPS signal samples comprises “storage” of those samples. That is, the “GPS signal samples” of claim 1 are equivalent to implied “GPS signal samples” in Baldino. Yet, when considering the very next feature recited in the claim (“subsequently processing...”), the Examiner switches to a different construction of “GPS signal samples” equating them instead with the “location information” of Baldino.

Moreover, the Examiner also mistakenly equates the “position fix” of claim 1, with the “icon” of Baldino. This is not supported by a plain English construction of these terms, nor is it supported by the respective disclosures of the present specification and Baldino. In Baldino, each “icon” is a graphic corresponding to a predefined combination of latitude and longitude. That is, it corresponds to a picture representing a predefined location. This has no equivalent in claim 1.

The equivalent of the “position fix” of the claim 1 is precisely the “location information” of Baldino since both consist of the position of the camera at the time the image /video was captured.

The Appellants therefore submit that the construction applied by the Examiner is confused and inconsistent with a plain English interpretation of the documents. Accordingly, the alleged anticipation of the recited feature, based on that construction, is incorrect.

Thus, for the reasons outlined above Baldino does not disclose “subsequently processing the GPS signal samples to obtain a position fix” as recited by claim 1. Therefore, Baldino fails to disclose each element of claim 1, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

Thus, in view of at least the foregoing reasons, claim 1 is patentable over the cited art. Accordingly, the Appellants respectfully request that the § 102 rejection of claim 1 be overturned.

ii. Claim 7

1. Independent Claim 7 is patentable at least because Baldino fails to disclose “received GPS signals are sampled and the GPS signal samples are stored” as recited by claim 7.

Independent claim 7 recites “received GPS signals are sampled and the GPS signal samples are stored.” Baldino does not teach these elements.

As argued above in relation to claim 1, Baldino does not teach storing GPS signals. Thus, Baldino does not disclose “received GPS signals are sampled and the GPS signal samples are stored” as recited by claim 7. Therefore, Baldino fails to disclose each element of claim 7, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

2. Independent Claim 7 is patentable at least because Baldino fails to disclose “received GPS signals are sampled and the GPS signal samples are stored with an indication of the created image file to which said GPS signal samples pertain” as recited by claim 7.

Independent claim 7 recites “received GPS signals are sampled and the GPS signal samples are stored with an indication of the created image file to which said GPS signal samples pertain” (emphasis added). Baldino does not teach these elements.

As argued above in relation to claim 1, Baldino does not teach storing GPS signals with an indication of the image file to which those GPS signal samples pertain. Thus, Baldino does not disclose “received GPS signals are sampled and the GPS signal samples are stored with an indication of the created image file to which said GPS signal samples pertain” as recited by claim

7. Therefore, Baldino fails to disclose each element of claim 7, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

Thus, in view of at least the foregoing reasons, claim 7 is patentable over the cited art. Accordingly, the Appellants respectfully request that the § 102 rejection of claim 7 be overturned.

iii. Claim 15

1. Independent Claim 15 is patentable at least because Baldino fails to disclose “configured to ...receive ...GPS signal samples” as recited by claim 15.

Independent claim 15 recites “configured to ...receive ...GPS signal samples” (emphasis added). Baldino does not teach these elements.

The Examiner equates the computer of claim 15 with the “display circuit” of Baldino. However, in order to do so, the Examiner also reads the “location information” present in Baldino’s image file onto the “GPS signal samples” of claim 15. As has been discussed above in relation to claim 1, the “GPS signal samples” of claim 15 cannot be construed to include “location information” which is latitude and longitude information. On the contrary, the “location information” of Baldino is instead clearly synonymous with the “position fix” of claim 15.

The Examiner contends, at paragraph 15 of the Advisory Action, that there is no language in claim 15 to distinguish Baldino’s “location information” from the “GPS signal samples” recited in claim 15. However, this is untrue.

Firstly, claim 15 recites the words “GPS signal samples.” The plain English construction of this phrase suggests samples of one or more GPS signals. This would be confirmed by the context provided by the description of the present application. The Appellants submit that it is unambiguously confirmed merely by the context of the technical field within which the claim 15 lies. The claim also requires that the GPS signal samples have “been sampled when the corresponding photo or video clip was taken.” This further reinforces the view that the “GPS signal samples” are indeed “samples of GPS signals.” It also further refutes the Examiner’s construction, because it would be meaningless to suggest that location information had been “sampled” when the photo or video clip was taken as if the latitude and longitude values were part of an existing analog signal which merely needed to be “inspected” upon taking a photo.

Once again, therefore, the Examiner's construction is implausible. What Baldino in fact discloses is that the camera processes the GPS signals to produce location information (i.e. a "position fix"). The image and position fix are uploaded to the "display circuit" and an icon is chosen which corresponds to the latitude and longitude of the position fix. Clearly, the GPS signals/samples of Bladino never leave the camera, so they cannot possibly be received by the display circuit.

Thus, for the reasons outlined above, Baldino does not disclose "configured to ...receive ...GPS signal samples" as recited by claim 15. Therefore, Baldino fails to disclose each element of claim 15, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

2. Independent Claim 15 is patentable at least because Baldino fails to disclose "configured to ...receive ...an indication of the corresponding image file to which the GPS signal samples pertain" as recited by claim 15.

Independent claim 15 recites "configured to ...receive ...an indication of the corresponding image file to which the GPS signal samples pertain" (emphasis added). Baldino does not teach these elements.

As has already been discussed above in relation to claim 1, the Examiner has failed to identify any teaching in Baldino which can be equated to storage of an image file with "an indication" of the corresponding image file to which GPS signal samples pertain. Likewise, the Examiner has also failed to establish how Baldino is supposed to teach the receipt, by the computer of claim 15, of such "indication."

Thus, for the reasons outlined above, Baldino does not disclose "configured to ...receive ...an indication of the corresponding image file to which the GPS signal samples pertain" as recited by claim 15. Therefore, Baldino fails to disclose each element of claim 15, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

3. Independent Claim 15 is patentable at least because Baldino fails to disclose "process by operation of the processor the GPS signal samples to obtain a position fix" as recited by claim 15.

Independent claim 15 recites "process by operation of the processor the GPS signal samples to obtain a position fix" (emphasis added). Baldino does not teach these elements.

As explained above, the display circuit of Baldino (which the Examiner equates to the computer of claim 15) never receives anything which could possibly be construed as “GPS signal samples.” Similarly, it does not process GPS signal samples to obtain a position fix. Rather, as is clearly and unambiguously disclosed by Baldino, the position fix (“location information”) is provided by the GPS module in the camera.

Thus, for the reasons outlined above, Baldino does not disclose “process by operation of the processor the GPS signal samples to obtain a position fix” as recited by claim 15. Therefore, Baldino fails to disclose each element of claim 15, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

4. Independent claim 15 is patentable at least because Baldino fails to disclose “append the position fix to the corresponding image file by operation of the processor” as recited by claim 15.

Independent claim 15 recites “append the position fix to the corresponding image file by operation of the processor” (emphasis added). Baldino does not teach these elements.

Once again, Baldino clearly and explicitly describes that the location information (i.e. latitude and longitude which is equivalent to the “position fix”) is added (“appended”) to the image data in an image file “when an image frame is captured and digitized” (i.e. at the camera). Therefore, Baldino cannot be said to disclose the aforementioned feature. To arrive at this conclusion the Examiner has again relied on the same flawed construction of the claims and the teaching of Baldino described above. Namely, the Examiner construes the “icon” of Baldino to be a “position fix” in the context of claim 15. As already outlined above in relation to claim 1, this interpretation is not supported by the Baldino or the present application not least because the “position fix” of claim 15 is clearly equivalent to the “location information” of Baldino.

Thus, for the reasons outlined above, Baldino does not disclose “append the position fix to the corresponding image file by operation of the processor” as recited by claim 15. Therefore, Baldino fails to disclose each element of claim 15, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

Thus, in view of at least the foregoing reasons, claim 15 is patentable over the cited art. Accordingly, the Appellants respectfully request that the § 102 rejection of claim 15 be overturned.

iv. Claims 2 and 9

1. Dependent Claims 2 and 9 depend from patentable base claims.

Claims 2 and 9 depend from claims 1 and 7, respectively, and incorporates the limitations thereof. Thus, for at least the reasons discussed above in connection with claims 1 and 7, Baldino fails to teach each element of claims 2 and 9. Therefore, claims 2 and 9 are patentable over the art of record because these claims depend from claims 1 and 7.

2. Dependent Claims 2 and 9 are patentable at least because Baldino fails to disclose “subsequently processing the GPS signal samples to obtain a position fix” is carried out after an “intentional delay” as recited by these claims.

Dependent claims 2 and 9 recite “subsequently processing the GPS signal samples to obtain a position fix” is carried out after an “intentional delay.” Baldino does not teach these elements.

Claims 2 and 9 require that the step of “subsequently processing the GPS signal samples to obtain a position fix” is carried out after an “intentional delay” and after the steps of “creating an image file”; “sampling received GPS signals” and “storing those GPS signal samples.” However, Baldino does not disclose any such delay. Once again, the Examiner relies on a flawed interpretation of Baldino and the claims which enables the contrary conclusion to be reached.

Thus, for the reasons outlined above, Baldino does not disclose “subsequently processing the GPS signal samples to obtain a position fix” is carried out after an “intentional delay” as recited by claims 2 and 9. Therefore, Baldino fails to disclose each element of claim 2 and 9 and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

Therefore in view of at least the foregoing reasons, claims 2 and 9 are separately patentable over the cited art. Accordingly, the Appellants respectfully request that the § 102 rejection of claims 2 and 9 be overturned.

v. Claims 3 and 12

1. Dependent Claims 3 and 12 depend from patentable base claims.

Claims 3 and 12 depend from claims 3 and 12, respectively, and incorporates the limitations thereof. Thus, for at least the reasons discussed above in connection with claims 1 and 7, Baldino fails to teach each element of claims 3 and 12. Therefore, claims 3 and 12 are patentable over the art of record because these claims depend from claims 1 and 7.

2. Dependent Claims 3 and 12 are patentable at least because Baldino fails to disclose “uploading...GPS signal samples to an external computer” as recited by these claims.

Dependent claims 3 and 12 recite “uploading...GPS signal samples to an external computer” (emphasis added). Baldino does not teach these elements.

As previously stated above, the Examiner has again incorrectly constructed Baldino’s “location information,” which is comprised of latitude and longitude data, as also “including” GPS signal samples. However, Baldino uploads “location information” whereas claims 3 and 12 recite uploading “GPS signal samples.” These are not equivalent pieces of data.

Thus, for the reasons outlined above, Baldino does not disclose “uploading...GPS signal samples to an external computer” as recited by claims 3 and 12. Therefore, Baldino fails to disclose each element of claims 3 and 12, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

Therefore in view of at least the foregoing reasons, claims 3 and 12 are separately patentable over the cited art. Accordingly, the Appellants respectfully request that the § 102 rejection of claims 3 and 12 be overturned.

vi. Claims 4 and 10

1. Dependent Claims 4 and 10 depend from patentable base claims.

Claims 4 and 10 depend from claims 1 and 7, respectively, and incorporates the limitations thereof. Thus, for at least the reasons discussed above in connection with claims 1 and 7, Baldino fails to teach each element of claims 4 and 10. Therefore, claims 4 and 10 are patentable over the art of record because these claims depend from claims 1 and 7.

2. Dependent Claim 4 and 10 is patentable at least because Baldino fails to disclose “detecting the connection to the camera of an external power source” as recited by these claims.

Dependent claims 4 and 10 recite “detecting the connection to the camera of an external power source” Baldino does not teach these elements.

The Examiner asserts in the Final Office Action mailed November 18, 2008 that this element of claims 4 and 10 is disclosed by column 4, lines 11-45 of Baldino. Specifically, the Examiner argues that these elements of claim 4 and 10 are disclosed by the connection of a

camera to a PC. However, the Appellants assert that these elements of claims 4 and 10 are clearly not disclosed by the cited sections of Baldino.

The cited passage describes how the image file is transferred to a display circuit, optionally via a “communication link.” Further, Baldino notes that the display circuit may be part of a personal computer. Therefore, this passage discloses a “connection” between a camera and a PC for communicating image files. However, it most certainly does not disclose an “external power source,” let alone “detecting the connection” of such a power source to the camera.

Further, the Appellants also submit that Baldino fails to disclose “step (ii) is done either automatically or after user confirmation of an automatic prompt for the same” as recited in claims 4 and 10.

Thus, for the reasons outlined above, Baldino does not disclose “detecting the connection to the camera of an external power source” as recited by claims 4 and 10. Therefore, Baldino fails to disclose each element of claims 4 and 10, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

Therefore in view of at least the foregoing reasons, claims 4 and 10 are separately patentable over the cited art. Accordingly, the Appellants respectfully request that the § 102 rejection of claims 4 and 10 be overturned.

vii. Claims 5, 11, and 13

1. Dependent Claims 5, 11, and 13 depend from patentable base claims.

Claims 5, 11, and 13 depend from claims 1 and 7, respectively, and incorporate the limitations thereof. Thus, for at least the reasons discussed above in connection with claims 1 and 7, Baldino fails to teach each element of claims 5, 11, and 13. Therefore, claims 5, 11, and 13 are patentable over the art of record because these claims depend from claims 1 and 7.

2. Dependent Claims 5, 11, and 13 are patentable at least because Baldino fails to disclose “creating an image file” and “sampling received GPS signals and storing those GPS signal samples with an indication” is performed twice prior to “subsequently processing the GPS signal samples” as recited by these claims.

Dependent claims 5, 11, and 13 recite “creating an image file” and “sampling received GPS signals and storing those GPS signal samples with an indication” is performed twice prior

to “subsequently processing the GPS signal samples” (emphasis added). Baldino does not teach these elements.

Baldino discloses that a user “loads image files” onto a PC. This implies that multiple image files have been created. Similarly, it seems to imply that GPS signals have been sampled in multiple instances. However, since Baldino describes at column 4, lines 1-10 that location information (latitude and longitude) is added when an image is captured, it implies that the GPS signal samples are processed “to obtain a position fix” at that time. Therefore, there is no possibility of capturing a second image and corresponding set of GPS signal samples “prior to” “subsequently processing the GPS signal samples...”

Thus, for the reasons outlined above, Baldino does not disclose “creating an image file” and “sampling received GPS signals and storing those GPS signal samples with an indication” is performed twice prior to “subsequently processing the GPS signal samples” as recited by claims 5, 11, and 13. Therefore, Baldino fails to disclose each element of claims 5, 11, and 13, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

Therefore in view of at least the foregoing reasons, claims 5, 11, and 13 are separately patentable over the cited art. Accordingly, the Appellants respectfully request that the § 102 rejection of claims 5, 11, and 13 be overturned.

viii. Claims 6 and 14

1. Dependent Claims 6 and 14 depend from patentable base claims.

Claims 6 and 14 depend from claims 1 and 7, respectively, and incorporate the limitations thereof. Thus, for at least the reasons discussed above in connection with claims 1 and 7, Baldino fails to teach each element of claims 6 and 14. Therefore, claims 6 and 14 are patentable over the art of record because these claims depend from claims 1 and 7.

2. Dependent Claims 6 and 14 are patentable at least because

Baldino fails to disclose “GPS signal samples are stored in a file format” as recited by these claims.

Dependent claims 6 and 14 recite “GPS signal samples are stored in a file format.” Baldino does not teach these elements.

This is presumably also related to the Examiner’s mistaken assumption that Baldino stores “location information” in an image file. According to claims 6 and 14, “GPS signal samples” are stored in a file format. However, as previously explained above, “GPS signal

samples” and “location information” cannot be validly equated. Thus, Baldino fails to disclose storing “GPS signal samples” in a file format, because Baldino instead stores “location information.”

Thus, for the reasons outlined above, Baldino does not disclose “GPS signal samples are stored in a file format” as recited by claims 6 and 14. Therefore, Baldino fails to disclose each element of claims 6 and 14, and therefore cannot form the basis of a rejection under 35 U.S.C. § 102.

Therefore in view of at least the foregoing reasons, claims 6 and 14 are separately patentable over the cited art. Accordingly, the Appellants respectfully request that the § 102 rejection of claims 6 and 14 be overturned.

ix. Claim 8

1. Dependent Claim 8 depends from a patentable base claim.

Claim 8 depends from claim 7 and incorporates the limitations thereof. Thus, for at least the reasons discussed above in connection with claim 7, Baldino fails to teach each element of claim 8. Therefore, claim 8 is patentable over the art of record because this claim depends from claim 7.

2. Dependent Claim 8 is patentable at least because Baldino fails to disclose “subsequent processing of the GPS signal samples to obtain a position fix” as recited by these claims.

Dependent claim 8 recites “subsequent processing of the GPS signal samples to obtain a position fix.” Baldino does not teach these elements.

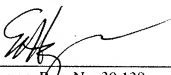
As argued above in relation to claim 1, Baldino does not teach “subsequent processing of the GPS signal samples to obtain a position fix” as recited by claim 8. Therefore, Baldino fails to disclose each element of claim 8, and cannot form the basis of a rejection under 35 U.S.C. § 102.

Thus, in view of at least the foregoing reasons, claim 8 is separately patentable over the cited art. Accordingly, the Appellants respectfully request that the § 102 rejection of claim 8 be overturned.

In view of the above arguments, the Appellants respectfully request that the rejection of all claims be overturned.

Respectfully submitted,
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Dated: 5/29, 2009


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Jessica Hueter

VIII. CLAIMS APPENDIX

1. (Original) A method of appending a position stamp to an image file of a photo or video clip taken with a digital camera having a GPS antenna and a GPS RF front-end including an analogue to digital converter for receiving GPS signals and outputting GPS signal samples, the method comprising the steps of:

(i) upon a user taking a photo or video clip:

(a) creating an image file containing that photo or video clip, and

(b) sampling received GPS signals and storing those GPS signal samples with an indication of the image file of the photo or video clip to which those GPS signal samples pertain; and

(ii) subsequently processing the GPS signal samples to obtain a position fix and appending the position fix to the image file.

2. (Original) A method according to claim 1 wherein step (ii) is done after an intentional delay has elapsed after step (i).

3. (Original) A method according to claim 1 further comprising the step of, after step (i) but before step (ii), uploading the image file and GPS signal samples to an external computer.

4. (Original) A method according to claim 1 further comprising the step of, after step (i), detecting the connection to the camera of an external power source whereupon step (ii) is done either automatically or after user confirmation of an automatic prompt for the same.

5. (Original) A method according to claim 1 wherein step (i) is performed twice upon a user taking respective first and second photo or video clips, prior to step (ii) being done for the first photo or video clip.

6. (Original) A method according to claim 1 wherein the GPS signal samples are stored in a file format.

7. (Previously Presented) A digital camera comprising:
a GPS antenna; and
a GPS RF front-end including an analogue to digital converter for receiving GPS signals;
said digital camera being configured so that upon a user taking a photo or video clip:
(a) an image file is created containing that photo or video clip and
(b) received GPS signals are sampled and the GPS signal samples are stored with an indication of the created image file to which said GPS signal samples pertain.

8. (Previously Presented) A digital camera according to claim 7 further comprising a GPS signal processor to perform subsequent processing of the GPS signal samples to obtain a position fix and append the position fix to the image file.

9. (Previously Presented) A digital camera according to claim 8 configured to process the GPS signal samples to obtain said position fix after an intentional delay has elapsed after said GPS signal samples are stored.

10. (Previously Presented) A digital camera according to claim 8 configured to process the GPS signal samples to obtain said position fix after detecting the connection to the camera of an external power source either automatically or after user confirmation of an automatic prompt for the same.

11. (Previously Presented) A digital camera according to claim 8 configured to allow said image file creation and said GPS signal sample storing to be performed twice upon a user taking respective first and second photo or video clips prior to processing the GPS signal samples to obtain said position fix and appending the position fix to the image file of the first photo or video clip.

12. (Original) A digital camera according to claim 7 configured to upload the image file and GPS signal samples to an external computer.

13. (Previously Presented) A digital camera according to claim 12 configured to allow said image file creation and said GPS signal sample storing to be performed twice upon a user taking respective first and second photo or video clips prior to uploading the image files and GPS signal samples to said external computer.

14. (Original) A digital camera according to claim 7 wherein the GPS signal samples are stored in a file format.

15. (Previously presented) A computer comprising a processor and receiver, and configured to:

(a) receive through the receiver an image file containing a photo or video clip, GPS signal samples and an indication of the corresponding image file to which the GPS signal samples pertain by virtue of having been sampled when the corresponding photo or video clip was taken;

(b) process by operation of the processor the GPS signal samples to obtain a position fix; and

(c) append the position fix to the corresponding image file by operation of the processor.

IX. EVIDENCE APPENDIX

No evidence is submitted with this appeal.

X. RELATED PROCEEDINGS APPENDIX

No related proceedings exist.